CLAIMS

What is claimed is:

1. A remote management system for a plurality of servers comprising;

a remote management module located near a group of servers having a first port for exchanging server management command and data signals with a server and a second port for exchanging signals with a remote server management computer, and

a bus coupled to said first port of said remote management unit and to each of said servers.

2. A remote management system according to Claim 1 further comprising:

for each server, a local management controller coupling its associated server to said bus and converting server management status and video data signals from its associated server to packetized signals coupled to said bus.

3. A remote management system according to Claim 2 wherein:

said local management controller converts packetized signals from said bus to server command and data signals for its associated server.

4. A remote management system according to Claim 1 wherein:

said bus comprises a plurality of bus segments coupled in daisy chain fashion.

5. A remote management system according to Claim 1 wherein:

said bus comprises a multiconductor cable carrying packetized signals.

6. A remote management system according to Claim 1 wherein:

said bus comprises a plurality of segments coupling said first port to each of said servers;

further comprising;

a multiplexor for each of said servers, each multiplexor having three ports, two of said ports coupling said bus segments in series and the third port coupled to its associated server.

7. A remote management system according to Claim 6 wherein:

each multiplexor is adapted to respond to a hot key signal on said daisy chained bus identifying its associated server and couple said server to said bus.

8. A remote management system according to Claim 6 further comprising:

a control bus master coupled to said remote management module receiving a signal identifying a server to which the remote management module is to be connected,

a control bus slave for each of said servers and coupled to one of said multiplexors, and

a control bus coupling said control bus master to each of said control bus slaves,

each said control bus slave responding to a signal on said control bus identifying the server associated with the multiplexor to which it is coupled by signaling said multiplexor to couple signals from the server to the bus.

9. A remote management system according to Claim 1 wherein:

said second port exchanges signals in IP protocol.

10. A remote management system according to Claim 1 wherein:

said second port is coupled to a network.

11. A remote management system according to Claim 10 wherein:

said network is the Internet.

12. A method of remotely managing a plurality of servers comprising:

coupling a remote management computer to a remote management module through a network, and

coupling said remote management module to a plurality of servers with a bus.

13. A method of remotely managing a plurality of servers according to Claim 12 further comprising:

converting server management status and video data signals from each server to packetized signals and coupling said packetized signals to said bus.

14. A method of remotely managing a plurality of servers according to Claim 12 further comprising:

converting packetized signals from said bus to server command and data signals and coupling said server command and data signals to a server.

15. A method of remotely managing a plurality of servers according to Claim 12 wherein said bus comprises a plurality of bus segments further comprising:

coupling successive bus segments together and coupling servers to the bus by a multiplexor for each server.

16. A method of remotely managing a plurality of servers according to Claim 15 further comprising:

selecting a server to exchange server management command and data signals with said remote management module by sending a selection signal to a multiplexor associated with the selected server.

17. A method of remotely managing a plurality of servers according to Claim 16 wherein:

said step of selecting comprises sending a hot key command identifying the selected from said remote management computer to all servers coupled to the bus.

18. A method of remotely managing a plurality of servers according to Claim 16 wherein:

said step of selecting comprises;

sending a server selection signal from said remote management module to a control bus master device,

coupling the selection signal from the control bus master over a control bus to control bus slave devices associated with each server, and

coupling a multiplexor control signal from the control bus slave device associated with the selected server to the multiplexor associated with the selected server.

19. A remote management system for a plurality of servers comprising;

two remote management modules located near a group of servers, each module having a first port for exchanging server management command and data signals with a server and a second port for exchanging signals with a remote server management computer over a network, and

two busses, each coupled to the first port of one of said remote management units and each coupled to each server in one of two subgroups of said servers.

20. A remote management system for a plurality of servers according to Claim 19 further comprising;

a network switch having a port coupled to each of said second ports of said remote management modules and having a port coupled to a network.

21. A remote management system for a plurality of servers according to Claim 20 wherein:

said network is the Internet.

22. A remote management system for a plurality of servers comprising;

first and second remote management modules located near a group of servers, each remote management module having a first port for exchanging server management command and data signals with a server and a second port for exchanging signals with a remote server management computer over a network,

a first bus, coupled to the first port of said first remote management unit and coupled to each server in said group of servers, and

a second bus, coupled to the first port of said second remote management unit and coupled to each server in said group of servers.

23. A remote management system for a plurality of servers according to Claim 20 further comprising;

a network switch having a port coupled to each of said second ports of said first and second remote management modules and having a port coupled to a network.

24. A remote management system for a plurality of servers according to Claim 23 wherein:

said network is the Internet.

25. A remote management system according to Claim 22 further comprising:

for each server, a local management controller coupling its associated server to said first bus and to said second bus and converting server management status and video data signals from its associated server to packetized signals coupled to said first bus and to said second bus.

26. A remote management system according to Claim 22 wherein:

said first bus comprises a plurality of segments coupling said first port of said first remote management module to each of said servers; and

said second bus comprises a plurality of segments coupling said first port of said second remote management module to each of said servers;

further comprising;

a first multiplexor for each of said servers, each first multiplexor having three ports, two of said ports coupling said first bus segments in series and the third port coupled to its associated server, and

a second multiplexor for each of said servers, each second multiplexor having three ports, two of said ports coupling said second bus segments in series and the third port coupled to its associated server.

27. A remote management system according to Claim 26, further comprising:

a first control bus master coupled to said first remote management module receiving a signal identifying a server to which the first remote management unit is to be coupled,

a second control bus master coupled to said second remote management module receiving a signal identifying a server to which the second remote management unit is to be coupled,

a first control bus slave for each of said servers and coupled to one of said first multiplexors,

a second control bus slave for each of said servers and coupled to one of said second multiplexors,

a first control bus coupling said first control bus master to each of said first control bus slaves, and

a second control bus coupling said second control bus master to each of said second control bus slaves,

each said first control bus slaves responding to a signal on said first control bus identifying the server associated with the multiplexor to which it is coupled by signaling said multiplexor to couple signals from the server to the first bus, and

each said second control bus slaves responding to a signal on said second control bus identifying the server associated with the multiplexor to which it is coupled by signaling said multiplexor to couple signals from the server to the second bus.

28. A remote management system according to Claim 27, further comprising:

an arbitration bus for each server, said arbitration bus coupling said first and second control bus slaves associated with each server.

29. A remote management system for a plurality of servers comprising;

a remote management module located near a group of servers having first and second data ports for exchanging server management command and data signals with a server, and a network port for exchanging signals with a remote server management computer, and

first and second data busses coupled to said first and second data ports of said remote management unit and to each of said servers.

30. A remote management system according to Claim 29 further comprising:

for each server, a local management controller having first and second data ports coupling its associated server to said first and second data busses respectively and converting server management status and video data signals from its associated server to packetized signals coupled to said first and second data busses.

31. A remote management system according to Claim 30 further comprising:

first and second multiplexors for each of said servers,

each first multiplexor coupling a local management controller first data port to the first data bus, and

each second multiplexor coupling a local management controller second data port to the second data bus.

32. A remote management system according to Claim 31 further comprising:

a control bus master coupled to said remote management module and having a control bus port,

a control bus slave associated with each of said servers, and each coupled to the first and second multiplexors associated with the same server,

a control bus coupled to said control bus master control bus port and coupled to each of said control bus slaves.

33. A remote management system according to Claim 29 further comprising:

a second network port for exchanging signals with a remote server management computer.